

In the Claims:

Please cancel claims 1-54 without prejudice to the inclusion of the subject matter contained therein any later filed divisional or continuation application(s).

Please add new claims 55-77 as follows:

55. (New) A method for generating a blood vessel in a mammal, the method comprising administering autologous or allogeneic bone marrow stromal cells to said mammal, wherein said cells differentiate into cells of a blood vessel in said mammal, thereby generating a blood vessel.

56. (New) The method of claim 55, wherein said bone marrow stromal cells are administered to said mammal suffering from a disease, disorder, or condition characterized by a defect in a blood vessel.

57. (New) The method of claim 55, wherein said mammal is a human.

58. (New) The method of claim 55, wherein said bone marrow stromal cells are human cells.

59. (New) The method of claim 55, wherein said bone marrow stromal cells are administered systemically to said mammal.

60. (New) The method of claim 55, wherein said bone marrow stromal cells are administered intravenously to said mammal.

61. (New) The method of claim 55, wherein said bone marrow stromal cells are administered intra-arterially to said mammal.

62. (New) The method of claim 55, wherein said bone marrow stromal cells are administered intraperitoneally to said mammal.

63. (New) A method for repairing or regenerating a blood vessel in a mammal, the method comprising administering autologous or allogeneic bone marrow stromal cells to said mammal, wherein said cells differentiate into cells of a blood vessel in said mammal, thereby repairing or regenerating a blood vessel in said mammal.

64. (New) The method of claim 63, wherein said mammal is a human.

65. (New) The method of claim 63, wherein said bone marrow stromal cells are human cells.

66. (New) The method of claim 63, wherein said bone marrow stromal cells are administered systemically to said mammal.

67. (New) The method of claim 63, wherein said bone marrow stromal cells are administered intravenously to said mammal.

68. (New) The method of claim 63, wherein said bone marrow stromal cells are administered to intra-arterially said mammal.

69. (New) The method of claim 63, wherein said bone marrow stromal cells are administered intraperitoneally to said mammal.

70. (New) A method of treating a disease, disorder or condition in a mammal wherein said disease, disorder or condition is characterized by a defect in a blood vessel, the method comprising the steps of:

- a) obtaining a bone marrow sample from a donor who is not suffering from a disease, disorder or condition characterized by a defect in a blood vessel and who is syngeneic with said mammal;
- b) isolating stromal cells from said sample; and,
- c) administering said isolated stromal cells to said mammal.

71. (New) The method of claim 70, wherein said disorder of the blood vessel is peripheral vascular disease.

72. (New) The method of claim 70, wherein said mammal is a human.

73. (New) The method of claim 70, wherein said bone marrow stromal cells are human cells.

74. (New) The method of claim 70, wherein said bone marrow stromal cells are administered systemically to said mammal.

75. (New) The method of claim 70, wherein said bone marrow stromal cells are administered intravenously to said mammal.

76. (New) The method of claim 70, wherein said bone marrow stromal cells are administered intra-arterially to said mammal.

77. (New) The method of claim 70, wherein said bone marrow stromal cells are administered intraperitoneally to said mammal.